ABSTRACT

This invention relates to an MSM type photo-detection device designed to detect incident light and comprising reflecting means (2) superposed on a support (1), to form a first mirror for a Fabry-Pérot type resonant cavity, a layer of material (3) that does not absorb light, an active layer (4) made of a semiconducting material absorbing incident light and a network (5) of polarization electrodes collecting the detected signal. The electrodes network is arranged on the active layer and is composed of parallel conducting strips at a uniform spacing at a period less than the wavelength of incident light, the electrodes network forming a second mirror for the resonant cavity, the optical characteristics of this second mirror being determined by the geometric dimensions of the said conducting strips. The distance separating the first mirror from the second mirror is determined to obtain a Fabry-Pérot type resonance for incident light between these two mirrors.

Figure 1